

GE4NN-A

GENERATOR, TIME MARK

1. GENERAL. This procurement requires a general purpose time mark generator.

2. CLASSIFICATION. Type II, Class 5, Style E, and Color R in accordance with MIL-T-28800 for shipboard applications.

3. OPERATIONAL REQUIREMENTS. The equipment shall be capable of generating calibrated outputs within the minimum ranges and accuracies specified below.

3.1 Calibrated marker ranges. 0.1 us to 5s. The marker pulse shall have a base width typically 10% of pulse interval for markers from 1 us/div to at least 5 s/div and a base width typically 30% of pulse interval for markers below 1 us/div.

3.1.1 Marker amplitude. 500 mV peak-to-peak minimum into 50 ohms.

3.2 Calibrated trigger ranges. 100 ns to 1s in decade steps. The trigger shape shall be a fast rise square wave with leading edge coincident with time marks.

3.2.1 Trigger rise time. 3 ns maximum into 50 ohms.

3.2.2 Trigger amplitude. 500 mV peak minimum into 50 ohms.

3.2.3 Trigger aberrations. Overshoot and pre-swing shall be less than 2% and the flatness of the waveform shall be $\pm 0.5\%$ or less of trigger amplitude.

3.3 Internal reference frequency stability. 75 ppm per month within an operating temperature range of 20°C to 50°C.

3.4 External reference input. The equipment shall be capable of specified operation during use of an external reference frequency standard.

4. GENERAL REQUIREMENTS.

4.1 Power source. MIL-T-28800 nominal power source requirements are invoked. Operation at 400 Hz is not required. Maximum power consumption: 35W.

4.2 Weight. 20 kg (44 lb) maximum.

4.3 Lithium batteries. Per MIL-T-28800, lithium batteries are prohibited without prior authorization. A request for approval for the use of lithium batteries, including those encapsulated in integrated circuits, shall be submitted to the procuring activity at the time of submission of proposals. Approval shall apply only to the specific model proposed.